

DANC: DANCE

- DANC 1500 Introduction to Dance** 3-0-3
A general survey and appreciation of dance as an art form, an introduction to dance history and a critical evaluation of dance.
- DANC 1600 Ballet I** 1-2-2
Basic techniques and theories of classical ballet. Emphasizes body placement, awareness, strength, stretch, and terminology. May be repeated for credit.
- DANC 1700 Modern Dance I** 1-2-2
Basic modern dance techniques and theories. May be repeated for credit.
- DANC 1900 Tap Dance I** 1-2-2
Basic skills in tap dancing. May be repeated for credit.
- DANC 2600 Ballet II** 2-2-3
Prerequisite: DANC 1600 or approval of department head. A continuation of Ballet I (DANC 1600). May be repeated for credit.
- DANC 2700 Modern Dance II** 2-2-3
Prerequisite: DANC 1700 or approval of department head. A continuation of Modern I (DANC 2600). May be repeated for credit.
- DANC 2800 Jazz Dance I** 1-2-2
Basic jazz dance techniques and theories. May be repeated for credit.
- DANC 2900 Tap Dance II** 1-2-2
Prerequisite: DANC 1900. A continuation of Tap Dance I (DANC 1900). May be repeated for credit.
- DANC 2910 Social Dance** 0-2-1
Introduction to history, terms, positions and movements. Psychomotor instruction in social dance forms from the turn of the century to the present.
- DANC 2920 Dance Improvisation** 0-2-1
An introduction to dance improvisation. Movement studies will be based on modern dance techniques and theories.
- DANC 3000 Dance Composition** 2-2-3
Prerequisite: DANC 1600 or DANC 1700 or approval of department head. The study of the tools of dance composition, creating individual and group studies, and solving dance composition problems.
- DANC 3100 Choreography** 2-2-3
Prerequisite: DANC 3000 or approval of department head. An application of the fundamentals of dance composition to choreographic projects. Emphasis is also placed on exploring, analyzing, and experimenting with problems in dance performance and production.
- DANC 3200 Dance Ensemble** 0-4-2
Prerequisite: Audition by instructor. A select ensemble emphasizing group and solo performance. May be repeated for a total of 6 credit hours.
- DANC 3300 Special Topics in Dance** 1 to 3 hours credit
The study of specific topics in dance not covered in existing courses. May be repeated for credit if different topics are studied.
- DANC 3410 Dance History** 3-0-3
A broad survey of dance history with emphasizes on the impact of dance on society from primitive times to the present.
- DANC 3420 Music Analysis for Dancers** 1-2-2
Prerequisite: Any 2000-level DANC course. A study of rhythm, accompaniment, and music resources for dance.

- DANC 3500 Teaching Dance Technique** 1-2-2
Prerequisites: Training in intermediate dance forms, DANC 2700, DANC 2800, and DANC 2600, or approval or instructor. Methodology in teaching dance techniques and theories within the context of elementary through college dance education. The course includes instruction in and application of dance lesson planning and practice teaching in a variety of genres.
- DANC 3600 Ballet III** 2-2-3
Prerequisite: DANC 2600 or approval of department head. A continuation of Ballet II with emphasis on developing the refined movements of ballet techniques and theories. May be repeated for credit.
- DANC 3700 Modern Dance III** 2-2-3
Prerequisite: DANC 2700 or approval of department head. A continuation of Modern Dance II with emphasis on developing advanced skills in modern techniques and theories. May be repeated for credit.
- DANC 3800 Jazz Dance II** 2-2-3
Prerequisite: DANC 2800 or approval of department head. A continuation of Jazz Dance I. May be repeated for credit.
- DANC 3910 Social Dance II** 1-2-2
Prerequisite: DANC 2910 or instructor head. A continuation of Social Dance, with an emphasis on developing advanced skills for the performance-oriented student.
- DANC 4000 Pointe and Variation** 1-2-2
Prerequisite: DANC 3600 or approval of department head. The study of pointe technique, the teaching of specific classical ballet variations and partnering skills for both the male and female dancer. May be repeated for credit.
- DANC 4010 Dance Kinesiology** 3-0-3
Prerequisites: Completion of DANC courses in Area F: DANC 1600, DANC 1700, DANC 2800, DANC 2920. An intensive study in the field of dance science. Emphasis is placed on principles of kinesiology applied to dance movement, anatomical analysis, conditioning, and injury prevention. Special attention will be given to the application of information to technique class, rehearsal, choreography, and individual anomalies.
- DANC 4020 Conditioning and Wellness for Dance** 3-0-3
Prerequisite: DANC 4010 or permission of instructor. An in-depth study of dance science principles addressing conditioning and wellness techniques specific to dance. This course includes both physical and cognitive components.
- DANC 4600 Ballet IV** 2-2-3
Prerequisite: DANC 3600 or permission of instructor. A continuation of Ballet III, with an emphasis on developing advanced skills in ballet techniques and theories. May be repeated for credit.
- DANC 4700 Modern Dance IV** 2-2-3
Prerequisite: DANC 3700 or permission of instructor. A continuation of Modern Dance III, with an emphasis on developing advanced skills in modern dance techniques and theories. May be repeated for credit.
- DANC 4800 Jazz Dance III** 2-2-3
Prerequisite: DANC 3800 or permission of instructor. A continuation of Jazz Dance II. May be repeated for credit.
- DANC 4900 Directed Study in Dance** 1-9 hours credit
 Individual instruction for enrichment of advanced majors in their areas of specialization. This course may be repeated for up to 9 hours of credit.

DEAF: DEAF EDUCATION

- DEAF 2999 Entry to the Profession** **0 hours credit**
Graded “Satisfactory” or “Unsatisfactory.” A required non-credit course for all deaf education initial certification candidates pursuing a VSU-recommended program of study. The course must be successfully completed prior to or corequisite with the first semester of professional graduate-level courses listed in the program of study. Candidates are required to establish an electronic portfolio, have passed or exempted the Regents’ exam, have a 2.5 GPA or higher, have a satisfactory criminal background check, and purchase liability insurance. If an “Unsatisfactory” grade is earned, the course must be repeated until a “Satisfactory” grade is received.
- DEAF 3100 Orientation to Deaf Education and Language Learning** **3-0-3**
Prerequisite: INTP 2998 or DEAF 2999. An overview of the field of deaf education, with an emphasis on language development in children and adults who are deaf. Topics include anatomy and physiology of the ear, language modes, assessment instruments, and other topics pertinent to the field. Emphasis is placed on flexibility in using different modes of communication as they relate to stages of language development.
- DEAF 3110 Orientation to Deafness** **3-0-3**
Prerequisite: INTP 2998. An overview of the field of deafness. Topics include psychosocial aspects of deafness, educational settings, modes of communication, technology, vocational opportunities, moral development, and needs of the multi-handicapped deaf and hard-of-hearing population.
- DEAF 3120 Learning, Cognition, and Social Development in Deaf Children** **3-0-3**
Prerequisite: INTP 2998. An introduction to the study of the growth and development of deaf and hard of hearing children and how being deaf may affect an individual's educational, cognitive, and social development. The focus of this class is toward a general understanding of how being deaf or hard of hearing is influential in shaping the life experiences of individuals. Various perspectives regarding being deaf will be explored and examined in light of general theories of psychological and social development.
- DEAF 3130 Overview of Language Learning in Deaf Children** **3-0-3**
Prerequisite: INTP 2998. An overview of language development in deaf children from infancy through young adulthood. The course includes an examination of the various theories of language development and assessment instruments used to evaluate this population. Emphasis is placed on interpreter flexibility in using the different modes of communication as they relate to the various stages of language development.
- DEAF 3150 Deaf Community, Culture, and History** **3-0-3**
Prerequisites ASLS 3170, ASLS 3180, and INTP 2998 of DEAF 2999. Overview of the historical and cultural aspects of the Deaf community and the patterns of social change during the 19th and 20th centuries. Students will be exposed to ASL literature, including folklore, fiction, nonfiction, and drama.
- DEAF 4050 Manual Communication** **3-0-3**
An introduction to manual communication. Emphasis is placed on skill development in the use of American Sign Language. Open as an elective to all undergraduate majors.

ECED: EARLY CHILDHOOD EDUCATION

- ECED 2999 Entry to the Education Profession** 0 hours credit
Graded “Satisfactory” or “Unsatisfactory.” A required non-credit course for all teacher education candidates pursuing a VSU recommendation for initial certification; must be successfully completed prior to admission to teacher education. Candidates are required to establish an electronic portfolio and provide evidence that all teacher education admission requirements have been satisfactorily met. If an “Unsatisfactory” grade is earned, the course must be repeated until a “Satisfactory” grade is received.
- ECED 3000 Integrating and Applying Technology into the ECE Curriculum** 3-0-3
Prerequisites: ESCE 2999. Explores the integration and application of technology into the early childhood curriculum. Achieved through modeling and applying teaching and learning strategies; discussions of technology and pedagogy; strategies of classroom management; the review and evaluation of technology and software appropriate for use with young children; and the development of integrated technology learning activities, which include the Georgia Performance Standards.
- ECED 3190 Early Childhood Practicum and Seminar: PreK-K** 2 hours credit
Prerequisites: ESCE 2999, and a minimum GPA of 2.75. Graded “Satisfactory” or “Unsatisfactory.” Pre-K or K classroom experiences supervised by mentor teachers and instructors for a minimum of 100 hours; debriefing seminars on the implementation of developmentally appropriate content areas and strands, appropriate teaching formats and strategies, and professional behavior; and observation of teaching and management strategies for all students in their classroom.
- ECED 3300 Mathematics and Technology in Early Childhood** 3-0-3
Prerequisites: ESCE 2999. This is a check-point course, and check-point requirements must be met. Recent developments in curriculum and methods on instruction of contemporary school mathematics in grades P-5, including the use of manipulative materials, technology, and other resources. ECED 3690, or a practicum approved at the program level, is required as a co-requisite for this course.
- ECED 3400 Planning for Instruction and Classroom Management** 3-0-3
Prerequisites: ESCE 2999. Fundamentals of teaching across all content area subject matter will be explored including models of teaching, lesson and unit planning, and creating a classroom environment that is conducive to learning.
- ECED 3690 Early Childhood Practicum and Seminar: Grades 1-3** 2 hours credit
Prerequisites: ESCE 2999, minimum GPA of 2.75, grade of “S” in ECED 3190. Graded “Satisfactory” or “Unsatisfactory.” This is a check-point course, and check-point requirements must be met. Grade 1-3 classroom experiences supervised by mentor teachers and university supervisors for a minimum of 100 hours; debriefing seminars on the implementation of developmentally appropriate content areas and strands, appropriate teaching formats and strategies, and professional behavior; and observation of teaching strategies for all students.
- ECED 4300 Teaching Language Arts in Early Childhood Education** 3-0-3
Prerequisites: ESCE 2999. The application of methods for teaching listening, speaking, reading, writing, viewing, and visually representing in early childhood. Emphasis is placed on methods of process writing for the genres of journal, descriptive, letter, biographical, narrative, and poetic writing.
- ECED 4400 Social Sciences and Technology in Early Childhood Education** 3-0-3
Prerequisite: ESCE 2999. A study of the content, curriculum, methods, and technology to support instruction in the social sciences in grades P-5. ECED 4690 or a practicum placement approved at the program level is required as a corequisite of this course.

- ECED 4500 Science and Technology in Early Childhood Education** 3-0-3
Prerequisites: ESCE 2999. Application of developmentally appropriate science programs in the context of standards-based inquiry and focusing on constructivist models of student learning of content, attitudes, and skills. Instructional technology will be integrated with curriculum for grades P-5. ECED 4690 or a practicum approved at the program level is required as a co-requisite of this course.
- ECED 4690 Early Childhood Practicum and Seminar: Grades 4-5** 2 hours credit
Prerequisites: ESCE 2999, minimum GPA of 2.75, grade of “S” in ECED 3190 and in ECED 3690. Graded “Satisfactory” or “Unsatisfactory.” Grades 4-5 classroom experience supervised by mentor teachers and university supervisors for a minimum of 100 hours; debriefing seminars focused on the implementation of developmentally appropriate content areas and strands, appropriate teaching formats and strategies, and professional behavior; and observation of appropriate teaching strategies for students.
- ECED 4790 Student Teaching and Reflective Seminar** 9 hours credit
Prerequisites: Completion of all core and previous semester professional courses (professional courses with a “C” or higher) and a minimum GPA of 2.75. Co-requisite: ECSE 4420. A semester-long experience in an early childhood full-day classroom (P-5) under the direct supervision of an assigned mentor teacher and university supervisor. The seminar examines interrelationships of home, school, and community resources and other topics related to the student teaching experience.
- ECED 4890 Internship in Early Childhood Education** 12 hours credit
Prerequisites: Completion of requirements to student teach as listed in the University’s Undergraduate Catalog, submission of passing scores on Praxis II, and certification by a school district of the status of the candidate as an employee. Credit: Course completion requires a two-semester internship, taken for a total of 12 hours (6 hours each semester). Guided professional experiences in an early childhood classroom (P-5) as a capstone/culminating activity of the Early Childhood Education Program. Students teach and manage a classroom under the guidance of a mentor teacher and university professor. Experience includes observations, participation, teaching, classroom management, and collaboration with school personnel.

ECON: ECONOMICS

- ECON 1500 Survey of Economics** 3-0-3
 A survey of basic economic concepts with applications to public policy issues.
- ECON 1500H Survey of Economics Honors** 3-0-3
 Seminar-oriented approach to a survey of basic economic concepts with applications to public policy issues. A policy analysis project is required.
- ECON 2105 Principles of Macroeconomics** 3-0-3
 An introduction to macroeconomic concepts and their application to aggregate economic activity. Factors influencing rates of economic growth, employment, and inflation are emphasized. Measures of aggregate economic activity and policies to control it are covered.
- ECON 2105H Principles of Macroeconomics Honors** 3-0-3
 An introduction to macroeconomic concepts and their application to aggregate economic activity. Factors influencing rates of economic growth, employment, and inflation are emphasized. Measures of aggregate economic activity and policies to control it are covered. This honors course requires written economic analysis of current events.

- ECON 2106 Principles of Microeconomics** 3-0-3
An introduction to microeconomic concepts and their application to the behavior of individuals, firms, and market groups. Special emphasis is placed on market analysis, production and cost concepts, profit analysis, and market structure. Current microeconomic issues, including market failures and the role of government in markets, are covered.
- ECON 2106H Principles of Microeconomics Honors** 3-0-3
An introduction to microeconomic concepts and their application to the behavior of individuals, firms, and market groups. Special emphasis is placed on market analysis, production and cost concepts, profit analysis, and market structure. Current microeconomic issues, including market failures and the role of government in markets, are covered. This honors course requires written economic analysis of current events.
- ECON 3000 Research and Analytical Methods in Economics** 3-0-3
Prerequisites: ECON 2105 and ECON 2106. **Co-requisites:** MATH 1261 and either BUSA 2100 or MATH 2620. Introduction to applied research and quantitative analysis. The course includes the components of a research paper, data sources, software used for empirical research, and basic statistical and econometric techniques widely used in modern economic research.
- ECON 3001 Mathematics for Economists** 3-0-3
Prerequisites: ECON 2105, ECON 2106, and MATH 1261. Introduction to mathematical concepts and techniques used in economic analysis. Topics covered will include algebraic analysis of supply and demand, calculus, and their applications to economic theory.
- ECON 3400 Public Finance and Fiscal Policy** 3-0-3
Prerequisite: ECON 2105, ECON 2106, and MATH 1261. Comprehensive treatment of economic theory and applications in the field of public finance and fiscal policy. Includes the study of market failure, the provision of public goods, benefit/cost analysis, public expenditures, and the principles of government finance.
- ECON 3450 Sports Economics** 3-0-3
Prerequisite: ECON 2106. Applications of microeconomic principles to the sports industry. The course emphasizes the industrial organization, public finance, and labor market outcomes of the sports industry. Topics include profit-maximization of sports franchises, broadcasting rights, competitive balance, the value of talent, and sports in the not-for-profit sector.
- ECON 3600 International Economics** 3-0-3
Prerequisite: ECON 2105, ECON 2106, and MATH 1261. Survey of the international exchange of goods, services and financial instruments and the policies that affect this exchange. Topics include pattern of trade, effects of trade controls, trade and growth, trade and the distribution of income, balance of payments accounting, exchange rate systems and the effect of trade on employment, prices, and production.
- ECON 3710 Urban and Regional Economics** 3-0-3
Prerequisites: ECON 2105, ECON 2106, and MATH 1261. Factors that influence the type, level, and location of urban and regional activities. The special aspects of poverty, land use, urban environment, and rural development are explored.
- ECON 3750 Money and Banking** 3-0-3
Prerequisite: ECON 2105. Analysis of financial intermediaries, instruments and markets in determining the level and distribution of economic activity.
- ECON 3800 Environmental Economics** 3-0-3
Prerequisites: ECON 2106 and MATH 1261. Application of microeconomic principles to environmental and natural resource policy. Topics include economic efficiency and market failure, valuing the environment, pollution control, exhaustible and renewable resource policy, waste and toxic substance disposal, and the effect of industry and agriculture on the environment.

- ECON 3810 Health Economics** 3-0-3
Prerequisites: ECON 2106 and MATH 1261. Comprehensive introduction to the economics of health and health care. Topics include the market for health care, private insurance and health care providers, social insurance, and health system reform.
- ECON 3820 Experimental Economics** 3-0-3
Prerequisites: ECON 2106 and MATH 1261. An introduction to the use of experimental methods in economics. Coverage will include design of experiments, analysis of experimental data and interpretation of results, application in microeconomic topic areas, and overview of existing findings. Students will gain hands-on experience as they conduct and participate in computerized laboratory experiments.
- ECON 3850 Sustainability: An Economic Perspective** 3-0-3
 Introduction to economic analysis related to sustainability literature. Topics covered will include the depletion of fisheries, population growth, ecological footprints, corporate environmental responsibility, socially responsible investing, green GDP, and industrial symbiosis.
- ECON 3860 Labor Economics and Labor Relations** 3-0-3
Prerequisites: ECON 2106 and MATH 1261. Investigation of the workings and outcomes of the labor market. Topics include the determination of wages, wage differentials, the impact of unions, and the process of collective bargaining.
- ECON 4100 Managerial Economics** 3-0-3
Pre- or co-requisites: ECON 3000 and ECON 3001. Analysis of major decision-making areas within the firm. Students are introduced to demand forecasting techniques, advanced production and cost relationships, and optimal pricing models.
- ECON 4500 Intermediate Macroeconomics** 3-0-3
Pre- or co-requisite: ECON 3001. Analysis of the factors that influence national income, long-run economic growth, unemployment, and inflation. Using various macroeconomic models, students develop the analytic tools and insights required to evaluate the sources of business cycle fluctuations. The impacts of fiscal and monetary policy decisions are emphasized.
- ECON 4640 International Macroeconomics** 3-0-3
Prerequisite: ECON 4500. Advanced study of the international exchange of financial instruments and the effects of this exchange on employment, prices, production and the balance of trade (payments). International macroeconomic policy is emphasized.
- ECON 4800 Current Issues in Economics** 3-0-3
Prerequisites: ECON 2105 and ECON 2106. Study of a specific, current topic or topics in the field of economics. May be repeated once for additional credit with prior approval of advisor and instructor if different topics are covered in the subsequent course.
- ECON 4980 Economics Internship** 3 hours credit
Prerequisite: ECON 2105, ECON 2106, and completion of the Economics Internship Agreement Form. Graded "Satisfactory" or "Unsatisfactory." The application of academic economic skills in an employment situation. A research project, approved by a faculty member and the employer, is required. A student must adhere to the Economics Internship Program Guidelines. The internship can be taken only once.
- ECON 4990 Directed Study in Economics** 3 hours credit
Prerequisites: ECON 3000 and ECON 3001. Directed research or reading in economics. Proper form must be submitted to the Dean of the College of Business Administration at least two weeks before the beginning of the semester.

ECSE: Early Childhood Special Education

- ECSE 2999 Entry to the Education Profession** **0 credit hours**
Graded “Satisfactory” or “Unsatisfactory.” A required non-credit course for all teacher education candidates pursuing a VSU recommendation for initial certification; it must be successfully completed prior to admission to teacher education. Candidates are required to establish an electronic portfolio and provide evidence that all teacher education admission requirements have been satisfactorily met. If an “Unsatisfactory” grade is earned, the course must be repeated until a “Satisfactory” grade is received.
- ECSE 3010 Introduction to Assessment, Planning, and Instruction** **3-0-3**
Prerequisite: Appropriate 2999 course. Introduction to evidence-based practices and theories of learning and development that underlie the teaching and learning process related to assessment, planning, and instruction across multiple grade levels, with a focus on pre-kindergarten and kindergarten levels and the curricular disciplines. ECSE 3390, ECED 3190, or a practicum placement approved at the program level is required as a corequisite of this course.
- ECSE 3020 Intermediate Assessment, Planning, and Instruction** **3-0-3**
Prerequisites: Appropriate 2999 course and ECSE 3010. This is a check-point course, and check-point requirements must be met. The use of selected evidence-based practices and theories of learning processes related to assessment, planning, and instruction. Grades 1-3 to meet the diverse and individualized needs of the students. ECSE 3490, ECED 3690, or a practicum approved at the program level is required as a co-requisite of this course.
- ECSE 3210 Introduction to the Management of Learning Environments** **3-0-3**
Prerequisite: Appropriate 2999 course. Fundamentals of creating classroom environments that are conducive to learning. The course will focus on individual and group management strategies that facilitate inclusion of students with disabilities in the classroom, basic behavior management principles, and developmentally appropriate strategies for Pre-K and K students. ECSE 3390, ECED 3190, or a practicum approved at the program level is required as a co-requisite of this course.
- ECSE 3220 Intermediate Management of Learning Environments** **3-0-3**
Prerequisites: Appropriate 2999 course; ECSE 3210. Application of general classroom management principles in classroom environments that are conducive to learning. Developmentally appropriate strategies for first through third grade students will be emphasized and selectively implemented. Teacher candidates will analyze behavior management programs through data collection. Specific behavior management strategies appropriate for students with specific identified behavioral needs will be taught. A field experience, as prescribed by the instructor, is required for the course.
- ECSE 3390 Early Childhood Inclusive Practicum and Seminar: Pre-K-K** **1-4-2**
Prerequisites: Appropriate 2999 course, Maintenance of required GPA. Graded “Satisfactory” or “Unsatisfactory.” Supervised classroom experiences in pre-kindergarten and kindergarten classrooms. Candidates work under the supervision of mentor teachers and university supervisors for a minimum of 100 hours. Emphasis will be placed on addressing students with and without disabilities in the classroom environment. Candidates will also participate in debriefing seminars focused on the implementation of developmentally appropriate content areas, strands, and teaching formats.
- ECSE 3490 Early Childhood Inclusive Practicum and Seminar: Grades 1-3** **1-4-2**
Prerequisites: Appropriate 2999 course, Maintenance of required GPA, Grade of “S” in ECSE 3390. Graded “Satisfactory” or “Unsatisfactory.” Supervised classroom experiences in inclusive first- through third-grade classrooms. Candidates work under the supervision of mentor teachers and university supervisors for a minimum of 100 hours. Emphasis will be placed on addressing students with and without disabilities in the classroom environment. Candidates will also participate in debriefing seminars focused on implementation of devel-

opmentally appropriate content areas, strands, and teaching formats. Candidates will be observed implementing appropriate teaching and management strategies for all students in their first through third grade classroom experience.

ECSE 4010 Advanced Assessment, Planning, and Instruction 3-0-3

Prerequisites: Appropriate 2999 course, ECSE 3010, and ECSE 3020. An expansion of candidates' knowledge and skill base regarding the appropriate evidence-based practices and theories in grades 4-5 grades that underlie the teaching and learning processes related to assessment, planning, and instruction across the content areas of reading, math, science, social studies, fine arts, health, and technology, to meet the needs of diverse learners, in general education, inclusive settings, and special education classrooms. ECSE 4390, ECED 4690, or a practicum approved at the program level is required as a co-requisite of this course.

ECSE 4210 Advanced Management of Learning Environments 3-0-3

Prerequisites: Appropriate 2999 course; ECSE 3210; ECSE 3220. Review and implementation of fundamentals of creating classroom environments that are conducive to learning. The course will focus on individual and group management strategies that facilitate inclusion of students with disabilities in classrooms. The role of functional behavioral analysis and teachers' responsibilities in this process will be defined. Teacher candidates will synthesize information enabling them to effectively manage learning environments, collect data, and evaluate their ability to manage student learning and social behaviors in fourth- and fifth-grade classrooms. A field experience, as prescribed by the instructor, is required for this course.

ECSE 4310 Functional Academic and Behavior Assessment 3-0-3

Prerequisites: Appropriate 2999 course, ECSE 3010, ECSE 3020; Co-requisite: ECSE 4010. Assessments to address the needs of students who are not progressing academically with current methods and who may be demonstrating behavioral challenges in the classroom. A field experience, as prescribed by the instructor, is required for this course.

ECSE 4390 Early Childhood Inclusive Practicum and Seminar: Grades 4-5 1-4-2

Prerequisites: Appropriate 2999 course, Maintenance of required GPA, Grade of "S" in ECSE 3390 and 3490. Graded "Satisfactory" or "Unsatisfactory." Supervised classroom experiences in inclusive fourth- or fifth-grade classrooms. Candidates work under the supervision of mentor teachers and university supervisors for a minimum of 100 hours. Emphasis will be placed on addressing students with and without disabilities in the general education classroom environment. Candidates will also participate in debriefing seminars focused on implementation of developmentally appropriate content areas, strands, and teaching formats. Candidates will be observed implementing appropriate teaching and management strategies for all students in their fourth- through fifth-grade classroom experience.

ECSE 4420 Seminar in Classroom Management and Collaboration with Family, School, and Community Agencies 3-0-3

Prerequisites: Completion of all core and previous semester professional courses (professional courses with a "C" or higher) and a minimum GPA of 2.75. Co-requisite: ECSE 4490 or ECED 4790. Graded "Satisfactory" or "Unsatisfactory." Examination of the nature, extent, and significance of involving families in the education of children in grades pre-kindergarten through five. Interrelationships of home, school, and community agencies are examined in light of various programs, methods, and techniques of parent education. Leadership skills are emphasized in the areas of training, supporting, and guiding paraeducators and parent and community volunteers within the context of a developmentally appropriate classroom environment. Components of creating an elementary classroom environment that are conducive to learning will be discussed.

ECSE 4490 Student Teaching and Reflective Seminar in Early Childhood and Special Education 9 credit hours
Prerequisite: Completion of all core and previous semester professional courses (professional courses with a “C” or higher), and a GPA of 2.75. Co-requisite: ECSE 4420. A full-day, semester-long experience in early childhood inclusive P-5 classrooms under the supervision of a mentor teacher and a university supervisor.

EDUC: EDUCATION

- EDUC 2110 Investigating Critical and Contemporary Issues in Education** 3-1-3
Observations, interactions, and analyses of critical and contemporary educational issues. Students will investigate issues influencing the social and political contexts of educational settings in Georgia and the United States. Students will actively examine the teaching profession from multiple vantage points both within and outside the school. Against this backdrop, students will reflect on and interpret the meaning of education and schooling in a diverse culture and examine the moral and ethical responsibilities of teaching in a democracy. Successful completion of 10 hours of field experience is required. Prior to beginning the field experience, students must complete a criminal background check and obtain liability insurance.
- EDUC 2120 Exploring Socio-Cultural Perspectives On Diversity** 3-1-3
Fundamental knowledge of understanding culture and teaching children from diverse backgrounds. Specifically, this course is designed to examine the nature and function of culture; the development of individual and group cultural identity; definitions and implications of diversity; and the influences of culture on learning, development, and pedagogy. Successful completion of 10 hours of field experience is required. Prior to beginning the field experience, students must complete a criminal background check and obtain liability insurance.
- EDUC 2130 Exploring Learning and Teaching** 3-1-3
The study of educational psychology concepts through examination of learning and teaching processes, with the goal of applying this knowledge to enhance the learning of all students in a variety of educational settings and contexts. Successful completion of 10 hours of field experience is required. Prior to beginning the field experience, students must complete a criminal background check and obtain liability insurance.

ENGL: ENGLISH

ENGL 0099

See the Learning Skills section on the last page of the course offerings.

- ENGL 1101 Composition I** 3-0-3
A composition course focusing on skills required for effective writing in a variety of contexts, with emphasis on exposition, analysis, and argumentation, and also including introductory use of a variety of research skills. Students will develop analytical and evaluative skills by reading and writing expository and/or argumentative essays.
- ENGL 1101H Honors Composition I** 3-0-3
An honors-level composition course focusing on skills required for effective writing in a variety of contexts with emphasis on more advanced forms of critical analysis, exposition, and argumentation/persuasion, and also stressing introductory use of a variety of research skills.

- ENGL 1102 Composition II** 3-0-3
Prerequisite: ENGL 1101 or ENGL 1101H. A composition course focusing on writing skills beyond the levels of proficiency required by ENGL 1101 that emphasizes interpretation and evaluation and that incorporates a variety of more advanced research skills. Students will learn to organize and present ideas and information effectively in research essays.
- ENGL 1102H Honors Composition II** 3-0-3
Prerequisite: ENGL 1101 or 1101H. An honors-level composition course, focusing on writing skills beyond the levels of proficiency required by ENGL 1102, that emphasizes advanced rhetorical strategies and argument/persuasion. The course also stresses, via an array of theme-based studies, more varied forms of interpretation and evaluation and incorporates more advanced research skills than those taught in ENGL 1102.
- ENGL 2010 Writing in the Professions** 2-0-2
Prerequisite: ENGL 1102 or ENGL 1102H. An advanced examination of the elements and core skills of writing, with an emphasis on disciplinary rhetoric and style, including usage, diction, grammar, structure, tone, brevity, and clarity.
- ENGL 2060 Introduction to Literature** 3-0-3
Prerequisite: ENGL 1102 or ENGL 1102H. An introduction to literary studies, focusing on skills in critical reading, writing, and researching about the major genres of literature.
- ENGL 2080 Grammar and Style** 3-0-3
Prerequisite: ENGL 1102 or ENGL 1102H. An intensive review of English usage and syntax, including a study of selected stylistic principles and their rhetorical effects.
- ENGL 2110 World Literature I** 3-0-3
Prerequisite: ENGL 1102 or 1102H. A study of selected works of literature from the beginning of writing to the end of the 7th to 8th century, C.E., presented in their historical and cultural contexts. This course presents myths, epics, dramas, and prose works from Gilgamesh and Homer to the great traditions of Hebrew, Chinese, Indian, Middle Eastern, Greek, and Roman philosophers who laid the foundation for modern, global thought. The course also examines ancient and classical poetry from around the world.
- ENGL 2110H Honors World Literature I** 3-0-3
Prerequisite: ENGL 1102 or 1102H. An in-depth and writing-intensive study of selected works of literature and their cultural backgrounds from the beginning of writing to the end of the 7th to 8th century, C.E., presented in their historical and cultural contexts. This course, multicultural and comparative in focus, presents myths, epics, dramas, and prose works from Gilgamesh and Homer to the great traditions of Hebrew, Chinese, Indian, Middle Eastern, Greek, and Roman philosophers who laid the foundation for modern, global thought. The course also examines ancient and classical poetry from around the world.
- ENGL 2120 World Literature II** 3-0-3
Prerequisite: ENGL 1102 or 1102H. A study of selected works of world literature from the 8th to the 17th century, C. E., presented in their historical and cultural contexts. This course includes introductions to Medieval and Early Modern worldviews and presents literary works from India, Europe, the Middle East, Africa, China, Japan, and the Americas.
- ENGL 2120H Honors World Literature II** 3-0-3
Prerequisite: ENGL 1102 or 1102H. An in-depth and writing-intensive study of selected works of world literature from the 8th to the 17th century, C. E., presented in their historical and cultural contexts. This course, multicultural and comparative in focus, includes introductions to Medieval and Early Modern worldviews and presents literary works from India, Europe, the Middle East, Africa, China, Japan, and the Americas.

- ENGL 2130 World Literature III** 3-0-3
Prerequisite: ENGL 1102 or 1102H. A study of selected works of world literature from the 17th century to the present, presented in their historical and cultural contexts. Emphasis will be placed on major trends in the development of modern thought. This course includes introductions to major literary developments in Asia, Africa, Europe, and the Americas.
- ENGL 2130H Honors World Literature III** 3-0-3
Prerequisite: ENGL 1102 or 1102H. An in-depth and writing-intensive study of selected works of literature and their cultural backgrounds from the 17th century to the present, presented in their historical and cultural contexts. Emphasis will be placed on major trends in the development of modern thought. This course, multicultural and comparative in focus, includes introductions to major literary developments in Asia, Africa, Europe, and the Americas.
- ENGL 3000 Advanced Descriptive English Grammar** 3-0-3
Prerequisite: ENGL 2080. An advanced descriptive study of English grammar, including modern (structural and generative) perspectives on word formation, word classes, phrase structures, clause types, and transformations.
- ENGL 3010 Writing for Business** 3-0-3
Prerequisites: ENGL 1102 or 1102H. An advanced writing course focusing on the elements of effective writing, particularly as they apply to business and the professions.
- ENGL 3020 Technical Writing and Editing** 3-0-3
Prerequisite: ENGL 1102 or 1102H. An advanced writing course focusing on the elements of effective writing and editing for technical and instructional documents, including visuals and Web pages.
- ENGL 3030 Writing for the Legal and Social Science Professions** 3-0-3
Prerequisites: ENGL 1102 or 1102H. An advanced writing course focusing on the strategies used to write clear and effective legal and social science communications including memos, case reports, proposals, and briefs.
- ENGL 3050 Tutoring English Composition** 1-0-1
Prerequisites: ENGL 2110 or 2110H, 2120 or 2120H, 2130 or 2130H, or 2060. A review of the principles of English composition with focus on the revision of student writing. Includes instruction in the holistic evaluation and careful rhetorical analysis of student writing, discussion of the proper scope and available avenues of revision, and examination of the use of computers in the writing and revision process. Students will have supervised tutoring experience.
- ENGL 3060 Literary Research and Writing** 3-0-3
Prerequisite: ENGL 2060. A advanced writing and research course, focusing on the interpretation and evaluation of literature as well as on the role and function of criticism in the study of literature.
- ENGL 3110 British Literature I** 3-0-3
Prerequisite: ENGL 2060. A survey of the historical and formal development of British literature through the mid-18th century. Emphasis on major writers and movements as well as on terms relevant to the study of British literature.
- ENGL 3120 British Literature II** 3-0-3
Prerequisite: ENGL 2060. A survey of the historical and formal development of British and post-Colonial literature from the late 18th century to the present. Emphasis on major writers and movements as well as on terms relevant to the study of British literature.
- ENGL 3210 American Literature** 3-0-3
Prerequisite: ENGL 2060. A survey of the historical and formal development of pre-1865 American literature, with an emphasis on major writers and movements as well as on terms and concepts relevant to the study of American literature before the Civil War.
- ENGL 3215 American Literature II** 3-0-3
Prerequisite: ENGL 2060. A survey of the historical and formal development of American literature from 1865 to the present, with emphasis on major writers and movements as well as on terms and concepts relevant to the study of American literature after the Civil War.

- ENGL 3220 Studies in African American Literature** 3-0-3
Also offered as AFAM 3220. Prerequisite: ENGL 2110 or 2110H, 2120 or 2120H, 2130 or 2130H, 2060. A study of selected topics in African-American literature. May be repeated, but only 3 hours may be counted toward distribution requirements for the English major.
- ENGL 3225 Introduction to African American Literary Criticism** 3-0-3
Also offered as AFAM 3225. Prerequisites: ENGLISH 2110 or 2110H, ENGL 2120 or 2110H, ENGL 2130 or 2130H, ENGL 2060, or permission of the instructor. A study of major voices in African American literary theory. This course emphasizes the development of interpretive frameworks for examining the literature from an African American cultural perspective.
- ENGL 3230 Special Topics in African American Literature** 3-0-3
Also offered as AFAM 3230. Prerequisites: ENGLISH 2110 or 2110H, ENGL 2120 or 2110H, ENGL 2130 or 2130H, ENGL 2060, or permission of the instructor. Studies in African American literature, focusing on selected topics.
- ENGL 3300 Special Studies in Literature** 3-0-3
Prerequisite: ENGL 2110 or 2110H, 2120 or 2120H, 2130 or 2130H, or 2060 Studies of selected topics in literature.
- ENGL 3320 Studies in African Literature** 3-0-3
Also offered as AFAM 3320. Prerequisite: ENGL 2110 or 2110H, 2120 or 2120H, 2130 or 2130H, or 2060. A study of selected topics in African literature. May be repeated, but only 3 hours may be counted towards distribution requirements for the English major.
- ENGL 3330 Studies in Women and Literature** 3-0-3
Also offered as WGST 3330. Prerequisite: ENGL 2110 or 2110H, 2120 or 2120H, 2130 or 2130H, or 2060. An examination of selected topics in literature by or about women.
- ENGL 4110 Studies in British Literature to 1500** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of medieval literature, focusing on major works, figures (three or more), and/or themes.
- ENGL 4120 Studies in British Literature 1500-1660** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of British literature of the Renaissance period, focusing on major works, figures (three or more), and/or themes.
- ENGL 4130 Studies in British Literature 1660-1800** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of British literature of the Restoration and 18th century, focusing on major works, figures (three or more), and/or themes.
- ENGL 4140 Studies in British Literature: The Romantics** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of British literature of the Romantic period, focusing on major works, figures (three or more), and /or themes.
- ENGL 4145 Studies in British Literature: The Victorians** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of British literature of the Victorian period, focusing on major works, figures (three or more), and /or themes.
- ENGL 4150 Studies in British Literature 1910-1968** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of British literature from 1910-1968, focusing on major works, figures (three or more), and/ or themes.
- ENGL 4160 Studies in British Literature Since 1968** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of British literature since 1968, focusing on major works, figures (three or more), and/ or themes.
- ENGL 4210 Studies in American Literature to 1800** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of the literature of America from its beginning to 1800, focusing on major works, figures (three or more), and/or themes.
- ENGL 4220 Studies in American Literature 1800-1865** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of the literature of America from 1800 to 1865, focusing on major works, figures (three or more), and/or themes.

- ENGL 4230 Studies in American Literature 1865-1914** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of literature of America from 1865 to 1914, focusing on major works, figures (three or more), and/or themes.
- ENGL 4240 Studies in American Literature 1914-1945** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of literature of the Americas from 1914 to 1945, focusing on major works, figures (three or more), and/or themes.
- ENGL 4250 Studies in American Literature Since 1945** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of literature of the Americas after World War II, focusing on major contemporary works, figures (three or more), and/or themes.
- ENGL 4300 Special Topics in Literature** 3-0-3
Prerequisite or corequisite: ENGL 3060. Studies of literature focusing on selected topics.
- ENGL 4310 Studies in Major Writers** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of the interrelationship of the life and works of one or at most two major figures in literature.
- ENGL 4320 Studies in Poetry** 3-0-3
Prerequisite: ENGL 3060. A focused study of selected poetic works, with special emphasis on employing the tools of literary and critical analysis.
- ENGL 4330 Studies in Narrative** 3-0-3
Prerequisite: ENGL 3060. A focused study of selected works of narrative (fiction and/or non-fiction), with special emphasis on employing the tools of literary and critical analysis.
- ENGL 4340 Studies in Drama** 3-0-3
Prerequisite: ENGL 3060. A focused study of drama, with special emphasis on employing the tools of literary and critical analysis.
- ENGL 4350 Studies in Criticism/Theory** 3-0-3
Prerequisite or Co-requisite: ENGL 3060. A study of literary theory and criticism since Plato, with special emphasis on contemporary theories.
- ENGL 4360 Special Topics in Language and Writing** 3-0-3
Prerequisite: ENGL 2080. Studies of language or writing focusing on selected topics.
- ENGL 4600 Rhetorical Issues in Professional Writing** 3-0-3
Prerequisite: ENGL 3010 or 3020 or permission of the instructor. An advanced writing course examining rhetorical issues that arise from the professional writing process of planning, information gathering, drafting, revision, production, and distribution.
- ENGL 4610 History of the English Language** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of the origins and development of the English language.
- ENGL 4620 Survey of the History of Rhetoric** 3-0-3
Prerequisite or corequisite: ENGL 3060. A study of rhetorical theory and its major figures from the classical period to the present.
- ENGL 4630 Writing Technologies and Applications** 3-0-3
Prerequisite or corequisite: ENGL 3010 or 3020 or permission of the instructor. A study of the principles and applications of technologies used to produce materials for the workplace, including advanced word processing applications, presentation software, desktop publishing programs, and Web authoring tools.
- ENGL 4640 Studies in Composition Theory** 3-0-3
Prerequisite or corequisite: ENGL 2080. A study of the theory and practice of composition pedagogy, including crafting assignments; planning, drafting, and revising texts; and evaluating student writing.
- ENGL 4700 Directed Study** 1-0-1 to 3-0-3
Prerequisite or corequisite: ENGL 3060. Individualized studies in selected areas of language and literature, the amount of credit depending upon the requirements. Permission to enroll must be secured from the instructor.

ENGL 4800 Internship in English **3 to 12 hours credit**
Prerequisite or corequisite: ENGL 3060. Graded “Satisfactory” or “Unsatisfactory.”
Supervised work involving writing, for example, in a law office, an agency, a publishing company, or a business. The amount of credit depends upon the requirements. Permission to enroll must be secured from the adviser and the department head.

ENGL 4900 Senior Seminar **3-0-3**
Prerequisite or corequisite: senior standing and ENGL 3060. A capstone course, focused on selected topics and projects appropriate to the students’ track, designed to help students synthesize their knowledge and reinforce the skills they have acquired as English majors.

**For additional offerings in the Department of English, see
English as a Second Language (ENSL), Creative Writing and
Contemporary Literature (CWCL),
Journalism (JOUR), and Linguistics (LING).**

ENGR: ENGINEERING

ENGR 1010 Technological Problem Solving **3-0-3**
Prerequisite: MATH 1111 or higher. Development of the features and principles of problem solving techniques based on a variety of fundamental models for general application, such as physical component, sketching, graphical, and mathematical models. Emphasis is placed on solving problems of a technological nature.

ENGR 2010 Introduction to Engineering **3-0-3**
Interpretation of the scope of engineering; introduction to engineering disciplines that form the basis for a variety of career opportunities; engineering design as creative problem solving; lessons from design failures; professionalism and ethics; introduction to problem solving using MATLAB.

ENGR 2200 Statics **3-0-3**
Prerequisite: PHYS 2211; prerequisite or corequisite: MATH 2263. Elements of statics in two and three dimensions; forces and moments; particles, objects, and structures in equilibrium; centroids; distributed forces and beams; friction.

ENGR 2310 Introduction to Signal Processing **3-3-4**
Prerequisites: CS 1301, MATH 2262. Introduction to signal processing for discrete-time and continuous-time signals. Filtering, frequency response, Fourier Transform, Z Transform. Laboratory emphasizes computer-based signal processing.

ENGR 2320 Introduction to Computer Engineering **3-0-3**
Prerequisites: CS 1301, MATH 2262. Computer system and digital design principles; architectural concepts, software, Boolean algebra, number systems, combinational datapath elements, sequential logic, and storage elements; design of DRAM control and I/O bus. This course is taught via GSAMS.

ENGR 2500 Engineering Graphics for Design **2-2-3**
Introduction to engineering design and three-dimensional visualization; geometric construction; graphical projection and sketching; introduction to descriptive geometry; computer graphics.

ENGR 3210 Dynamics **3-0-3**
Prerequisite: ENGR 2200. Kinematics and kinetics of particles; kinematics and kinetics of rigid bodies in plane motion; kinematics and kinetics of rigid bodies in three-dimensional motion

- ENGR 3220 Mechanics of Deformable Bodies** 3-0-3
Prerequisite: ENGR 2200. Definition and analysis of strain and stress, applications to axially loaded elements, torsion of circular shafts and bending of beams, introduction to simple plasticity and column stability.
- ENGR 3320 Circuit Analysis** 3-0-3
Prerequisites: ENGR 2310, PHYS 2212. **Corequisite:** MATH 3340. Introduction to the basic concepts of DC and AC circuit theory and analysis.
- ENGR 4310 Thermodynamics** 3-0-3
Also offered as PHYS 4310. Prerequisites: PHYS 2211, PHYS 2212, MATH 2263, or **consent of the instructor.** Basic principles of classical thermodynamics, which includes open and closed systems for both steady and transient processes.
- ENGR 4950 Directed Study in Engineering** 1-0-1 to 3-0-3
Prerequisites: **Junior standing; permission of advisor, instructor, and department head.** Study in an area or subject not normally found in established courses offered by the department; may also allow student to explore in more depth an area or subject covered by the pre-engineering program. Up to maximum of 3 hours.

ENSL: ENGLISH AS A SECOND LANGUAGE

- ENSL 0100 Supplemental English for International Students** 3-0-3
Course carries institutional credit only. Required for international students scoring less than 523 on the TOEFL exam. Supplementary work in English to prepare ESL students for academic communication in a university setting. Assignments will help students improve their fluency and accuracy in both written and oral English.

ESOL: ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

- ESOL 4010 Applied Linguistics for ESOL Teachers** 3-0-3
A study of the nature, structure, and diversity of language, emphasizing the phonological, syntactic, and semantic patterns of English in comparison and contrast with features of other selected languages. Prospective teachers will explore the principles of linguistic systems and major theorists and schools of linguistic thought within the cultural framework of working with communities of non-native English speakers.
- ESOL 4020 Cultural Perspectives for ESOL Teachers** 3-0-3
A study of culture and its relationship with language and education. Prospective teachers will investigate theories related to the nature and role of culture and cultural programs in the construction of learning environments and support linguistically diverse learners.
- ESOL 4030 Methods and Materials for Teaching ESOL** 3-0-3
Methods of teaching English at the elementary, middle, and high school levels to students whose first language is not English. Topics include theories of second language acquisition, instructional strategies and materials, methods of evaluating proficiency and progress, and curriculum-building.
- ESOL 4040 Assessing English Language Learners** 3-0-3
The application of TESOL theories, principles, and current research to the assessment of P-12 and adult English Language Learners. This course emphasizes the importance of reading and literacy as fundamental factors in second-language acquisition.
- ESOL 4050 Teaching English Grammar for ESOL** 3-0-3
A survey of practical approaches to teaching English grammar to English Language Learners (ELLs) based upon the application of second language acquisition research and theory. The course includes a review of common grammar questions and errors in ELL environments.

ESOL 4060 Theory and Practice in Second-Language Acquisition 3-0-3
Discussion, analysis, and practice of the various theories and models of second-language acquisition.

FIN: FINANCE

- FIN 2380 Personal Finance** 3-0-3
Finance majors may not count this class for credit toward their degree. A non-technical introduction to personal financing decisions. Emphasis is placed on developing an understanding of budgeting, insurance, taxes, investments, home ownership and family financial planning.
- FIN 3350 Financial Management** 3-0-3
Prerequisite: ACCT 2102, ECON 2106. **Corequisite:** BUSA 2100 or MATH 2620.
Introduction to the principles of financial management as applied to the firm including financial analysis, acquisition of funds, capital structure, dividend policy, working capital management, and evaluation of investment projects.
- FIN 3360 Advanced Financial Management** 3-0-3
Prerequisite: FIN 3350. Continuation of FIN 3350 with a concentration on financial analysis, valuation of assets, risk analysis, cash flow projections, and long-term financing decisions.
- FIN 3370 Financial Statement Analysis** 3-0-3
Prerequisite: FIN 3350 with a grade of “C” or better. An introduction to financial statement analysis. This course emphasizes the use of publicly disclosed financial information to enhance economic decision making.
- FIN 3650 Multinational Corporate Finance** 3-0-3
Prerequisite: FIN 3350 with a grade of “C” or better. Theory and practice of multinational corporate and bank operations. Includes the study of foreign exchange markets, risks associated with foreign exchange transactions, accounting consolidations and foreign operations, and appropriate exchange-risk hedging techniques.
- FIN 3770 Fundamentals of Real Estate** 3-0-3
Prerequisite: FIN 3350 with a grade of “C” or better. Introduction to the fundamentals of real estate; theories, tools, and techniques needed to understand real estate markets.
- FIN 4310 Problems in Financial Management** 3-0-3
Prerequisite: FIN 3360 with a grade of “C” or better. An advanced study of the principles of financial management through the use of case analysis on topics covering financial analysis and planning, valuation, capital budgeting, working capital management, and financing.
- FIN 4520 Investments** 3-0-3
Prerequisite: FIN 3350 with a grade of “C” or better. An introduction to personal investing in financial and non- financial assets including stocks, bonds, and mutual funds. A discussion of securities markets, how new issues are brought to market, and how existing securities are traded. Includes material on identifying and evaluating the risk of investing.
- FIN 4720 Advanced Portfolio Management** 3-0-3
Prerequisite: FIN 4520 with a grade of “C” or better. Theory and applications of portfolio management. Students will apply investment strategies, risk assessment tools, asset allocation decisions, client-oriented portfolio construction, financial asset valuation, and ethics problems in investment management.

- FIN 4760 Financial Institution Management** 3-0-3
Prerequisite: FIN 3360 with a grade of “C” or better. Principles of financial institution management. Topics include functions and types of financial institutions, regulation of financial institutions, financial statement and performance analysis for financial institutions, credit and interest rate management, asset and liability management, and non-interest income management.
- FIN 4900 Current Issues in Finance** 3-0-3 each
Prerequisite: FIN 3360 with a grade of “C” or better. A survey of selected finance topics. The underlying theory and practical implications of these topics to the business world are examined. May be taken more than once if the topics are different, up to 9 hours.
- FIN 4980 Finance Internship** 3 hours credit
Prerequisite: Faculty approval. Graded “Satisfactory” or “Unsatisfactory.” The application of academic finance skills and values in an employment situation. A research project, approved by a faculty member and the employer, is required. May be taken more than once with Department Head approval.
- FIN 4990 Directed Study in Finance** 3 hours credit
Prerequisite: Faculty approval. A special project undertaken by the student. The project is guided by a faculty member and culminates in a research report.

FLED: FOREIGN LANGUAGE EDUCATION

- FLED 2999 Entry to the Education Profession** 0 hours credit
Graded “Satisfactory” or “Unsatisfactory.” A required non-credit course for all teacher education candidates pursuing a VSU recommendation for initial certification; must be successfully completed prior to admission to teacher education. Candidates are required to establish an electronic portfolio and provide evidence that all teacher education admission requirements have been satisfactorily met. If an “Unsatisfactory” grade is earned, the course must be repeated until a “Satisfactory” grade is received.
- FLED 3500 Foreign Language in the Elementary School** 2-0-2
Prerequisite: FLED 2999. **Corequisite:** FLED 3510. A study of current methodological and technological trends in curriculum and instruction at the elementary school level, including the traditional content-based foreign language in the elementary school (FLES) programs, foreign language exploratory programs (FLEX), and language immersion and two-way immersion programs.
- FLED 3510 Elementary Classroom Laboratory** 0-2-1
Prerequisite: FLED 2999. **Co-requisite:** FLED 3500. Implementation and assessment of appropriate elementary (P-5) classroom activities and lessons for second language acquisition in collaboration with a primary school teacher and university member.
- FLED 4500 Curriculum and Methods of Foreign Languages** 2-0-2
Prerequisites: FLED 2999 and Senior standing. **This a check-point course, and check-point requirements must be met. Co-requisite:** FLED 4510. Methods of teaching foreign languages at middle and the high school levels to students whose first language is English. Review of theories of second language acquisition, instructional strategies and materials, methods of evaluating proficiency and progress, curriculum, and professional organizations and resources.
- FLED 4510 Classroom Laboratory** 1-0-1
Prerequisite: FLED 2999. **Co-requisite:** FLED 4500. Implementation and assessment of appropriate classroom activities and lessons in collaboration with a secondary teacher and university faculty.

- FLED 4780 Internship in Foreign Language Education** **6 hours credit**
Prerequisite: Completion of course work and consent of department. Supervised teaching experience in foreign language education providing for demonstration of teaching competency. Six hours per semester for a maximum of 2 semesters.
- FLED 4790 Student Teaching** **10 hours credit**
Prerequisite: Senior Standing. Corequisite: FLED 4800. The capstone experience providing opportunity for students to implement theory and instructional practices in secondary classrooms; supervised observation, teaching, classroom management and evaluation; acquaintance with the administration of a school and the school program; selection and use of appropriate instructional materials; conferences with supervisors.
- FLED 4800 Senior Professional Development Seminar** **2-0-2**
Prerequisite: Senior Standing. Corequisite: FLED 4790. Graded "Satisfactory or Unsatisfactory." The capstone experience requiring student teachers to reflect upon their teaching experiences through interactions with peers, secondary education professionals and other educators in their content area. The preparation and presentation of a portfolio reflecting their student teaching experience is required.

FREN: FRENCH

- FREN 1001 Beginning French Language and Introduction to Francophone Cultures, I** **3-0-3**
 Emphasis on the development of proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions. FREN 1001 is not open for credit to students with two or more years of high school French or the equivalent.
- FREN 1002 Beginning French Language and Introduction to Francophone Cultures, II** **3-0-3**
Prerequisite: FREN 1001 or the equivalent. A continuation of FREN 1001, with emphasis on proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- FREN 1002H French Language and Introduction to Francophone Cultures, II (Honors)** **3-0-3**
Prerequisite: FREN 1001 or the equivalent. A continuation of FREN 1001 in an enriched environment, with emphasis on the development of proficiency and communicative competence at the novice level in the basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. The course will emphasize awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- FREN 1111 Intensive French Language and Francophone Cultures** **3-0-3**
Prerequisite: Two or more years of high school French or the equivalent. Emphasis on the development of proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions. FREN 1111 is a one-semester combination of FREN 1001 and FREN 1002. This course is designed for those students not fully prepared for the 1002 level. FREN 1111 reviews the concepts presented in FREN 1001 and advances the student through the material of FREN 1002.

- FREN 2001 Intermediate French Language & Francophone Cultures, I** 3-0-3
Prerequisite: FREN 1002 or the equivalent. Emphasis on the development of proficiency and communicative competence at the intermediate level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness and understanding of various socio-cultural aspects and the distinctiveness of certain cultural traditions.
- FREN 2002 Intermediate French Language & Francophone Cultures, II** 3-0-3
Prerequisite: FREN 2001 or the equivalent. A continuation of FREN 2001, with emphasis on proficiency and communicative competence at the intermediate level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness and understanding of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- FREN 2010 Intermediate Conversation** 3-0-3
 A study of conversational techniques, integrating grammatical structures and appropriate vocabulary. Emphasis is given to practicing spoken French and to using audio programs to increase listening comprehension. Attention is also given to pronunciation and phonetics.
- FREN 3000 French Grammar and Composition** 3-0-3
Prerequisite: FREN 2001 and FREN 2002 or MCL departmental approval. A thorough review and expansion of the main grammatical concepts, rules, and applications studied in FREN 1001, 1111 or 1002, 2001, and 2002 courses. A practical application of grammar study through translations (English to French), formal/informal writing and refinement of self-editing skills.
- FREN 3110 French Culture and Civilization I** 3-0-3
Prerequisite: FREN 2002 or permission of instructor. A survey of the historical, sociological, literary, and artistic developments of France up to modern times. As part of the Georgia French Collaborative, this is a distance-learning course conducted in French.
- FREN 3120 French Culture and Civilization II** 3-0-3
Prerequisite: FREN 2002 or permission of instructor. A survey of the historical, sociological, philosophical, literary, and artistic developments of modern-day France and the Francophone world. As part of the Georgia French Collaborative, this is a distance-learning course conducted in French.
- FREN 3301 Conversation and Composition I** 3-0-3
Prerequisite: FREN 2002 or consent of instructor. The development of students' proficiency in spoken and written French. Conversations will be based on communicative situations which students would encounter in the French-speaking world. Written activities will enable the student to react to typical exchanges which require written responses.
- FREN 3302 Conversation and Composition II** 3-0-3
Prerequisite: FREN 3301 or consent of instructor. Continued development of students' skills in spoken and written French. The students will discuss and write topics that include narration, defense of ideas, criticism, hypotheses, literature, etc.
- FREN 3320 French Oral Expression** 3-0-3
Prerequisite: FREN 2010 or consent of instructor. A practical study of spoken French, with emphasis on communication strategies that make it easier for students to communicate in a French context. Through creative classroom activities and exercises, students learn appropriate cultural interaction while discussing ideas, exchanging opinions, and giving advice or information. Practical spoken vocabulary is stressed. Attention is given to the grammatical structure of the language.
- FREN 3400 Introduction to Literature** 3-0-3
Prerequisite: FREN 2002 or consent of instructor. The development of students' reading skills and knowledge of the major literary genres. Texts are from contemporary sources and traditional literary selections of prose, poetry, and theater.

- FREN 3450 Current Events of the French-Speaking World** 2-0-2
Prerequisite: FREN 3301 or consent of instructor. A practical study of French TV and radio programs and other authentic media sources.
- FREN 3610 Women Writers of 17th-century France** 3-0-3
Prerequisite: FREN 3400 or consent of instructor. Selected literary works of major women writers of 17th-century France.
- FREN 3621 Survey of French Literature I** 3-0-3
Prerequisite: FREN 3400 or consent of instructor. Selected major literary works, authors, and literary movements of France from the Middle Ages through the 18th century.
- FREN 3622 Survey of French Literature II** 3-0-3
Prerequisite: FREN 3400 or consent of instructor. Selected major literary works, authors, and literary movements of France from the 19th century to the present.
- FREN 3630 Topics in French Language or Literature** 1-0-1
Prerequisite: FREN 3302 and FREN 3400 or consent of instructor. Intensive study to improve the student's ability in a particular area of French language or Francophone literature. This course requires independent work of the student and may be repeated with different topics for a total of 3 hours.
- FREN 4110 Advanced Grammar and Composition** 3-0-3
Prerequisite: FREN 2002 or consent of instructor. An advanced study of grammar, syntax, and vocabulary, with refinement of writing skills through composition. As part of the Georgia French Collaborative, this is a distance-learning course conducted in French.
- FREN 4210 Business French** 3-0-3
Prerequisite: FREN 2002 or permission of instructor. An introduction to the economic and business practices of contemporary France and the Francophone world. As part of the Georgia French Collaborative, this is a distance-learning course conducted in French.
- FREN 4400 French Phonetics and Advanced Conversation** 3-0-3
Prerequisite: FREN 3302 or consent of instructor. Study of phonetic principles and their applications.
- FREN 4950 Directed Study** 3-0-3
Prerequisite: FREN 4400, FREN 4410, or consent of instructor. Study in an area or topic of Francophone literature or the French language not normally found in established courses offered by the department. The work is done under the supervision of a professor.
- FREN 4960 Study Abroad Special Topics** 3-0-3
Consult the Department of Modern and Classical Languages regarding arrangements, requirements, and credit. May be repeated for a maximum of 9 hours if topics are different.
- FREN 4980 Community Practicum** 1 hour credit
Graded "Satisfactory" or "Unsatisfactory." A practical application of students' skills in French. Students will either tutor students enrolled in public or private schools or complete a research project that requires extensive use of all language skills. This course may be repeated for up to 4 credit hours. Field trips comprise 70% of the final grade.
- FREN 4990 Senior Seminar** 3-0-3
Prerequisite: Senior Standing. An all-inclusive communication skills course. This course focuses on the four basic skills: reading, listening, speaking and writing. It is designed to assess and reinforce the skills the student has acquired as a French major. Required of all French majors.

GENS: GENERAL STUDIES

- GENS 4200 Directed Study in Human Resources** 1-0-1 to 3-0-3
Prerequisite: Senior standing and permission of advisor, instructor, and General Studies Coordinator. Directed research, readings, or project in the field of human resources with regular conferences between instructor and student. An opportunity for mature students with experiential learning to integrate theory and practical applications on a one time basis.
- GENS 4900 Internship** 3 to 15 hours credit
Prerequisite: Senior standing, advisor's and General Studies Coordinator's approval. A supervised practical experience to integrate theories and practical applications of the various components of the program. The number of credit hours granted is dependent upon the program, academic work, requirements, and nature of participation.

GEOG: GEOGRAPHY

- GEOG 1100 Introduction to Geography** 3-0-3
A broad introduction to the field of geography, with its various traditions, subfields, and associated technologies. Topic areas covered include the multiple aspects of cultural and physical geography and tools used in the discipline, such as Geographic Information Systems (GIS) and Global Positioning Systems (GPS).
- GEOG 1101 Introduction to Human Geography** 3-0-3
A survey of global patterns of resources, population, culture and economic systems. Emphasis is placed upon the factors contributing to these patterns and the distinctions between the technologically advanced and less advanced regions of the world.
- GEOG 1102 World Regional Geography** 3-0-3
Examination of the interaction among the developed and developing regions of the world. Particular emphasis is placed on the interrelationships of historical, cultural, economic and political elements in critical areas of the world.
- GEOG 1103 Geographic Perspectives on Multiculturalism in the U.S.** 3-0-3
Geographic factors underlying multiculturalism and ethnic relationships in the U.S. Three interrelated themes are emphasized: the spatial development and organization of culture; population growth, migration, and urbanization; and the spatial dimensions of political, economic, and social processes.
- GEOG 1110 Our Hazardous Environment** 3-0-3
Also offered as GEOL 1110. A detailed examination of physical environmental hazards that influence human health and habitation. Lectures focus on the causes, processes, and results of naturally occurring and human-induced geologic, hydrologic, and atmospheric events, such as earthquakes, mudflows, floods, hurricanes, soil erosion, and nuclear and toxic waste. Some mathematics is used.
- GEOG 1112K Introduction to Weather and Climate** 3-2-4
Pre-or corequisite: MATH 1101 or higher. Weather components, processes, and their measurements. Climatic elements and their control factors and geographic classification of climatic and vegetation types are also discussed.
- GEOG 1113K Introduction to Land Forms** 3-2-4
Pre-or corequisite: MATH 1101 or higher. Introductory analysis and classification of major types of land surfaces, stressing geographic characteristics. Study and interpretation of relationships between landforms and other phenomena through maps, aerial photos, and field observations. World coverage with emphasis on North America.

- GEOG 1120 Introductory Oceanography** 3-0-3
An introductory examination of the physical, chemical, biological, and geological characteristics of the Earth's oceans. Effects of human activity on marine environments and resources as well as management of coastal resources will be discussed. Development of geographic skills and map interpretation through charts, graphs, and ocean models will be included.
- GEOG 1125 Resources, Society, and Environment** 3-0-3
Interactions between physical systems and human activities and their effects on environmental quality and stability. Topics include geography of population and resource consumption, food production, water and air quality, energy policy, land/biotic resource management. Contrasting social, ethical, and technological perspectives on environmental concerns are explored.
- GEOG 2010 Tools of Environmental Geoscience** 3-0-3
Also offered as GEOL 2010. An introduction to research techniques for the incoming environmental geoscience majors. This course includes an overview of the discipline and the tools used in geoscience research. Topics may include laboratory safety, research methods, exploration of resources (library and Internet), methods of data collection, data analysis, and scientific reporting of results.
- GEOG 3020 Global Climate Change** 3-0-3
Also offered as GEOL 3020. Prerequisite: GEOG 1112K or GEOL 1121K or GEOG 1113K or . An overview of global climate change based on changes to the Earth's atmosphere, lithosphere, and hydrosphere. This course provides an analysis of past climates in the geologic, biologic, and hydrologic record, the impact of fossil fuel utilization on climate over the last 250 years, and links to ice sheets and oceans. The course examines implications of global climate change on the human population, including diseases and severe weather, as well as biogeography, including the extinction of threatened species.
- GEOG 3050 Computer Cartography and Image Analysis** 2-2-3
Prerequisite or corequisite: GEOG 2010 or GEOL 2010. An introduction to digital production of general and thematic maps. Lectures and laboratory exercises cover principles of cartography and remote sensing as well as the manipulation and visualization of spatial data and imagery.
- GEOG 3051 Introduction to Geographic Information Systems** 2-2-3
Prerequisite: Junior standing or permission of the instructor. An examination of geographic information systems, including methods of capture, storage, analysis, and display of spatially-referenced data. Laboratory exercises provide experience with typical GIS operations and applications.
- GEOG 3052 Advanced Geographic Information Systems** 2-2-3
Prerequisite: GEOG 3051. Advanced applications of GIS including: overlay analysis, writing short macros for repetitive operations, spatial modeling and technical support of complex land use and natural resource management decision making. Laboratory exercises designed to form a cartographic and software portfolio for students.
- GEOG 3053 Application Issues in Geographic Information Systems** 3-0-3
Prerequisite: GEOG 3051. Operational and planning issues in GIS. Students will learn which issues need to be considered when proposing and implementing software/hardware GIS and will have opportunities to evaluate how a GIS can be used to solve specific planning problems.
- GEOG 3100 Regional Planning and Environmental Management** 3-0-3
Prerequisite: Consent of instructor. Introduction to planning for economic development, service provision and resource management at scales larger than municipalities with an emphasis on the environmental impacts of planning policy and regulation.

- GEOG 3120 Geosciences Field Trip** 2-2-3
Also offered as GEOL 3120. Prerequisites: GEOG 1113K or GEOL 1121K. A study of the geology and geography of a selected region during the first week, followed by a two-week field trip to points of interest. The interactions among geology, surficial processes, and organisms and how those interactions impact humans will be emphasized. Field trip destination is different each summer. Student fee required. Offered only during Summer Session I.
- GEOG 3150 Meteorology and Climatology** 3-0-3
Prerequisites: GEOG 1112 and 1113, MATH 1113. A detailed examination of atmospheric motions and climatic controls including the Earth's radiation and energy balance, air mass dynamics, weather systems, and past and present climates of the Earth.
- GEOG 3200 History of Life** 2-3-3
Also listed as GEOL 3200. Prerequisite: Sophomore standing and consent of instructor. Principles of paleontology with emphasis on the history of life including vertebrates. Includes an account of the outstanding forms of life from the beginning of earthtime to the present, and those paleontologically significant groups that are uncommon, different, or extinct today.
- GEOG 3210 An Introduction to Hydrology** 3-2-4
Also listed as GEOL 3210. Prerequisites: GEOL 1121 or GEOG 1112, and GEOG 1113. An introduction to surface and sub-surface hydrology, examining components of the hydrologic cycle. Topics include local and global water balance, precipitation, interception and infiltration, runoff, stream flow, water storage, and groundwater. This course makes use of some mathematical equations.
- GEOG 3240 Hydrogeology** 3-2-4
Also listed as GEOL 3240. Prerequisites: GEOL 1121 or GEOG 1112, and GEOG 1113. Introduction to the hydrology of groundwater. Study of the subsurface part of the hydrologic cycle and description of the occurrence, movement, and management of groundwater as a renewable resource. Special emphasis on surface water-groundwater interactions, sensitivity of karst aquifers to environmental stresses, water quality, groundwater contaminations, and field methods that are applied in groundwater studies. Weekend field trip(s) required.
- GEOG 3300 Process Geomorphology** 3-3-4
Also listed as GEOL 3300. Prerequisite: GEOL 1121, or GEOG 1112 and GEOG 1113. An introduction to process geomorphology examining landforms and their formative processes. Topics include weathering and slope, fluvial, coastal, aeolian, glacial and periglacial processes, and the application of soils to geomorphology. This course makes use of some mathematical equations. Field trip required.
- GEOG 3310 Physiography of North America** 3-0-3
Prerequisites: GEOL 1121, or GEOG 1112 and 1113, or consent of the instructor. The physiographic description, including the landforms, soils, structural framework, climate, plant and animal geography, natural resources, and the unique environmental problems of each major physiographic province of the United States and Canada, including Alaska, Hawaii, and Puerto Rico.
- GEOG 3320 Geomorphology of Fluvial and Coastal Environments** 3-0-3
Also listed as GEOL 3320. Prerequisite: GEOG 3300. An examination of processes and landforms in fluvial (river) and coastal environments. Fluvial topics include channel geometry and pattern, characteristics of flow, sediment load, bedforms, and floodplains. Coastal topics include the study of waves and tides, coastal sediment transport, beaches, and the effects of changing sea level. This course makes use of some mathematical equations.
- GEOG 3330 Geology, Hydrogeology, and Environmental Issues in Georgia** 3-0-3
Also listed as GEOL 3330. Prerequisite: GEOL 1121K. An overview of the geologic framework of Georgia and surrounding states, with emphasis on topical hydrogeologic and environmental issues that impact Georgia's environment. Students receive the appropriate geologic background necessary for careers that address environmental issues in the southeastern United States. One or more field trips to locations in the area will be included.

- GEOG 3410 Cultural Geography** 3-0-3
Prerequisite: consent of the instructor. A study of the Earth as the home of humankind, emphasizing the spatial and functional complexes of human geography. Topics to be considered are population, settlement form, settling processes, resources, and economic, political, and societal organizations.
- GEOG 3510 Urban Community Planning** 3-0-3
Principles and applications of planning for neighborhoods, towns and cities with an emphasis on the United States. Topics covered include: public services, land-use decision making, economic development, growth management and the role of non-government organizations.
- GEOG 3610 Economic Geography** 3-0-3
Prerequisites: GEOG 1102, or GEOG 1112 and 1113, or consent of the instructor. A study of areal variations in human economic activities as related to production, exchange, and consumption of economic goods and services. Emphasis is placed on location of economic activities and related theories.
- GEOG 3710 Environmental Soil Science** 3-3-4
Also offered as GEOL 3710. Prerequisites: CHEM 1211K; GEOG 1113K or GEOL 1121K. Soil properties, distribution and classification, factors of soil formation, and the relationships among soils, geomorphology, and the environment, stressing analysis and use of soils and soil databases for proper urban, agricultural, and environmental land use.
- GEOG 3810 Introduction to Biogeography** 3-0-3
Also offered as BIOL 3810. Prerequisites: Three of the following courses: GEOG 1112, GEOG 1113, BIOL 2010, BIOL 2230, BIOL 2270. An overview of factors controlling the distribution of plants and animals on the Earth. Topics discussed include ecological and evolutionary processes, geophysical and climatic phenomena, and historical and anthropogenic events that have influenced current distributions.
- GEOG 3910 European Geography** 3-0-3
A survey of European geography, with a special emphasis on the European Union. Topic areas covered include physical, economic, political, and cultural geography of Europe.
- GEOG 3920 Geography of the Middle East** 3-0-3
A survey of the nations of the Middle East, with a special emphasis on the Arab-Israeli conflict. Topic areas covered include physical, economic, political, and cultural geography of the Middle East.
- GEOG 4700 Field Methods in Environmental Geography** 2-4-4
Prerequisite: Junior Standing and consent of instructor. Study of field techniques and field problems in physical geography. Course includes classroom presentations, field projects, field trips, and writing technical reports.
- GEOG 4710 Statistics for Geoscientists** 3-0-3
Prerequisite: Math 2620 or permission of instructor. A survey of statistical methods used by geoscientists to solve real-world problems. The course will examine the various quantitative methods available to collect, analyze, and interpret geographic data; enable students to read and understand statistical results presented by geoscientists; help students to apply the correct statistical methods for the collection, analysis, and interpretation of their own data.
- GEOG 4800 Internship in Environmental Geosciences** 3 to 6 hours credit
Prerequisite: Consent of instructor and department head. Graded "Satisfactory" or "Unsatisfactory." A supervised, practical experience using environmental geosciences skills in an appropriate organization. The course provides students with an opportunity to apply skills learned during pursuit of the environmental geosciences degree to real world situations.

- GEOG 4860 Senior Thesis I** 1-0-1
Also offered as GEOL 4860. Prerequisite: Junior or Senior standing and consent of the instructor. The first course in a three-semester research project designed by the student and supervising faculty member(s) in an approved area of interest. Students will design their project and gather data during Senior Thesis I.
- GEOG 4861 Senior Thesis II** 2-0-2
Also offered as GEOL 4861. Prerequisite: GEOG 4860 or GEOL 4860. The second course in a three-semester research project designed by the student and supervising faculty member(s) in an approved area of interest. Students will continue data collection begun in Senior Thesis I, complete data analysis, and write a thesis.
- GEOG 4862 Thesis Presentation** 1-0-1
Also offered as GEOL 4862. Prerequisite: GEOG 4861 or GEOL 4861. The third course in a three-semester research project designed by the student and supervising faculty member(s) in an approved area of interest. Students will present their senior thesis project in both oral and poster form to the department or at an approved professional meeting.
- GEOG 4900 Special Topics in Geography** 1-0-1 to 4-4-6
Prerequisite: consent of instructor. Topic to be assigned by instructor; the course may be repeated more than once if the topics are different.
- GEOG 4990 Directed Study in Geography** 1-0-1 to 4-4-6
Prerequisite: at least Junior standing and permission of advisor, instructor, and Department Head. Study in area or subject not normally found in established courses offered by the department; may also allow students to explore in more detail and/or depth an area or subject covered by the department.

GEOL: GEOLOGY

- GEOL 1110 Our Hazardous Environment** 3-0-3
Also offered as GEOG 1110. A detailed examination of physical environmental hazards that influence human health and habitation. Lectures focus on the causes, processes, and results of naturally occurring and human-induced geologic, hydrologic, and atmospheric events, such as earthquakes, mudflows, floods, hurricanes, soil erosion, and nuclear and toxic waste. Some mathematics is used.
- GEOL 1121K Principles of Physical Geology** 3-2-4
Pre- or corequisite: MATH 1101 or higher. An introduction to the physical processes responsible for the formation and ever-continuing modification of our Earth. Topics covered include the structure of the Earth and plate tectonics, volcanoes and earthquakes, formation of minerals and the rock cycle, origin and evolution of the landscape, and groundwater and energy resources.
- GEOL 1122K Principles of Historical Geology** 3-2-4
Pre- or co-requisite: MATH 1101 or higher. An introduction to the physical and biological development of the Earth from its cosmic beginning to the present, with emphasis on reconstructing sedimentary environments, tectonic processes, and life forms represented in selected regions of North America. Topics covered include families of rocks, principles and concepts of geologic time, origin and interpretation of sedimentary rocks, evolution, plate tectonics, origin of the solar system, and a survey of Earth history through time.
- GEOL 2010 Tools of Environmental Geoscience** 3-0-3
Also offered as GEOG 2010. An introduction to research techniques for the incoming environmental geoscience majors. This course includes an overview of the discipline and the tools used in geoscience research. Topics may include laboratory safety, research methods, exploration of resources (library and Internet), methods of data collection, data analysis, and scientific reporting of results.

- GEOL 3010 Environmental Geology** 2-2-3
Prerequisite: Two natural science lab courses. The application of basic geologic principles and techniques to problems in land-use planning, resource management, waste disposal, conservation, energy plant siting, under-and-above-ground construction, subsidence, construction in seismic areas, slope-stability, urban development and other problems resulting from human interaction with the geological habitat.
- GEOL 3020 Global Climate Change** 3-0-3
Also offered as GEOG 3020. Prerequisite: GEOG 1112K or GEOL 1121K or GEOG 1113K or . An overview of global climate change based on changes to the Earth's atmosphere, lithosphere, and hydrosphere. This course provides an analysis of past climates in the geologic, biologic, and hydrologic record, the impact of fossil fuel utilization on climate over the last 250 years, and links to ice sheets and oceans. The course examines implications of global climate change on the human population, including diseases and severe weather, as well as biogeography, including the extinction of threatened species.
- GEOL 3050 Oceanography** 3-0-3
Prerequisite: Two natural science lab courses. The physical, chemical, geological, and biological characteristics of the ocean and the interactions between the hydrosphere, lithosphere, atmosphere, and biosphere.
- GEOL 3100 Principles of Mineralogy/Petrology** 3-3-4
Prerequisites: Sophomore standing, GEOL 1121K and GEOL 1122K, and consent of instructor. An introduction to mineral and rock identification, and the study of the genesis, occurrence, and uses of common minerals and rocks. Laboratory consists of identification of common rocks and minerals.
- GEOL 3101 Mineralogy** 3-3-4
Prerequisites: GEOL 1121K and CHEM 1151K-1152K, or their equivalents, and/or consent of the instructor. The classification, identification, and crystallography of the principal rock-forming minerals, silicate and non-silicate; and the introduction to the use of the petrographic microscope in the study of the crystallography and identification of minerals.
- GEOL 3102 Petrology and Petrography** 3-3-4
Prerequisite: GEOL 3101 and/or consent of instructor. Genesis, classification, and properties of igneous, metamorphic, and sedimentary rocks. Laboratory includes the use of analytical methods, hand specimens, thin-section study with the petrographic microscope, and the macroscopic and microscopic properties of important rock types.
- GEOL 3103 Environmental Mineralogy and Clay Materials** 3-3-4
Prerequisites: GEOL 1121K and CHEM 1211K. An introduction to basic concepts of crystallography, mineralogy, and clay minerals, stressing environmental uses and applications. Includes mineral systems, analytical techniques, and basic clay surface chemistry. Laboratory exercises focus on practical applications of mineralogy useful to the modern environmental scientist. Weekend field trips required.
- GEOL 3104 Optical Mineralogy and Petrography** 1-3-2
Pre- or co-requisite: GEOL 3100. A study of the petrographic microscope, principles of optical crystallography, identification of rock-forming minerals in thin section, and description of igneous, sedimentary, and metamorphic rocks in thin section. A field trip may be required.
- GEOL 3120 Geosciences Field Trip** 2-2-3
Also offered as GEOG 3120. Prerequisites: GEOG 1113K or GEOL 1121K. A study of the geology and geography of a selected region during the first week, followed by a two-week field trip to points of interest. The interactions among geology, surficial processes, and organisms and how those interactions impact humans will be emphasized. Field trip destination is different each summer. Student fee required. Offered only during Summer Session I.

- GEOL 3200 History of Life** 2-3-3
Prerequisite: Sophomore standing and consent of instructor. Principles of paleontology with emphasis on the history of life including vertebrates. Includes an account of the outstanding forms of life from the beginning of earthtime to the present, and those paleontologically significant groups that are uncommon, different, or extinct today.
- GEOL 3210 An Introduction to Hydrology** 3-2-4
Also listed as GEOG 3210. Prerequisites: GEOL 1121 or GEOG 1112 and GEOG 1113. An introduction to surface and sub-surface hydrology, examining components of the hydrologic cycle. Topics include local and global water balance, precipitation, interception and infiltration, runoff, stream flow, water storage, and groundwater. This course makes use of some mathematical equations.
- GEOL 3220 Invertebrate Paleontology** 2-2-3
Prerequisites: GEOL 1122K or BIOL 2270 or permission of instructor. Identification, classification, and natural history of major groups of invertebrates preserved as fossils in the geologic record, with special attention to those forms commonly encountered in the southeastern United States. Emphasis in laboratory will include taxonomic affinities and functional morphology. Saturday (optional) field trips will be scheduled to local areas of interest.
- GEOL 3230 Vertebrate Paleontology** 2-2-3
Prerequisites: GEOL 1121K and GEOL 1122K, or BIOL 2010 and BIOL 2270. Geologic history and evolution of animals with backbones, with coverage of extinct groups such as the Dinosauria.
- GEOL 3240 Hydrogeology** 3-2-4
Also listed as GEOG 3240. Prerequisites: GEOL 1121 or GEOG 1112, and GEOG 1113. Introduction to the hydrology of groundwater. Study of the subsurface part of the hydrologic cycle and description of the occurrence, movement, and management of groundwater as a renewable resource. Special emphasis on surface water-groundwater interactions, sensitivity of karst aquifers to environmental stresses, water quality, groundwater contaminations, and field methods that are applied in groundwater studies. Weekend field trip(s) required.
- GEOL 3250 Micropaleontology** 2-2-3
Prerequisites: GEOL 1122K, GEOL 3210, or consent of instructor. The classification, stratigraphic relationships, and methods of study of microfossils with emphasis on the stratigraphically important groups.
- GEOL 3300 Process Geomorphology** 3-3-4
Also listed as GEOG 3300. Prerequisite: GEOL 1121, or GEOG 1112 and GEOG 1113. An introduction to process geomorphology examining landforms and their formative processes. Topics include weathering and slope, fluvial, coastal, aeolian, glacial and periglacial processes, and the application of soils to geomorphology. This course makes use of some mathematical equations. Field trip required.
- GEOL 3320 Geomorphology of Fluvial and Coastal Environments** 3-0-3
Also listed as GEOG 3320. Prerequisite: GEOG 3300. An examination of processes and landforms in fluvial (river) and coastal environments. Fluvial topics include channel geometry and pattern, characteristics of flow, sediment load, bedforms, and floodplains. Coastal topics include the study of waves and tides, coastal sediment transport, beaches, and the effects of changing sea level. This course makes use of some mathematical equations.
- GEOL 3330 Geology, Hydrogeology, and Environmental Issues in Georgia** 3-0-3
Also listed as GEOG 3330. Prerequisite: GEOL 1121K. An overview of the geologic framework of Georgia and surrounding states, with emphasis on topical hydrogeologic and environmental issues that impact Georgia's environment. Students receive the appropriate geologic background necessary for careers that address environmental issues in the southeastern United States. One or more field trips to locations in the area will be included.

- GEOL 3400 Planetary Geology** 3-0-3
Also offered as ASTR 3400 . Prerequisite: ASTR 1010 or GEOL 1121 or GEOG 1113. Prerequisite or co-requisite: PHSC 1100 or PHYS 1111 or PHYS 2211. A study of the geology of the terrestrial planets and solid-surface moons, asteroids, comets, and meteorites. The course will focus on comparative planetary geology, with emphasis on geologic processes on the surface (e. g., volcanism, impact cratering, tectonism, erosion, mass wasting, mineralogy, and petrology), planetary interiors, and data collection methods such as remote sensing and image analysis.
- GEOL 3410 Structural Geology** 3-3-4
Prerequisites: GEOL 1121K and GEOL 1122K; MAT 1112 or equivalent. Structural features of rocks, such as folds, faults, joints, cleavage, and primary structures, including their origin, classification, analyses and economic relationships. A study of tectonic plate motion is included. Laboratory work includes depth and thickness problems, structure sections, and structure contour maps.
- GEOL 3450 Field Methods in Geology** 2-4-4
Prerequisites: Sophomore standing, GEOL 1121K and GEOL 1122K, and consent of instructor. An introduction to the basic tools and techniques used in preparation of topographic and geologic maps, and profiles and cross-sections. Includes uses of plane table, alidade, Brunton compass, and aerial photographs.
- GEOL 3500 Principles of Geochemistry** 3-2-4
Prerequisites: GEOL 1121K and CHEM 1151K, or consent of the instructor. The application of chemical principles to study of geological and environmental processes. Course emphasis is on understanding processes that influence the chemistry of water, sediment, and soil. Topics include aqueous solutions, thermodynamics, mineral-water equilibria, oxidation-reduction reactions, and radiogenic and stable isotopes. Laboratory component of the course is field-based.
- GEOL 3510 Environmental Issues in Economic Geology** 3-0-3
Prerequisite: GEOL 1121K. An introduction to the concepts and practice of economic geology, with emphasis on the environmental impact of resource exploitation focusing on the resource industries that exist in Georgia and surrounding states. Topics include traditional metals-based economic geology, industrial minerals, and energy-based resources. One or more field trips to locations in the area will be included.
- GEOL 3710 Environmental Soil Science** 3-3-4
Also listed as GEOG 3710. Prerequisites: CHEM 1211K; GEOG 1113K or GEOL 1121K. Soil properties, distribution and classification, factors of soil formation, and the relationships among soils, geomorphology, and the environment, stressing analysis and use of soils and soil databases for proper urban, agricultural, and environmental land use.
- GEOL 4110 Principles of Sedimentation and Stratigraphy** 3-2-4
Prerequisites: GEOL 1121K and GEOL 1122K. Corequisite: GEOL 3410. The interrelationships of sedimentation, stratigraphy, and paleogeography; methods in sediment studies, stratigraphic interpretation, and correlation. Field trips required.
- GEOL 4800 Internship in Environmental Geosciences** 3 to 6 hours credit
Prerequisite: Consent of instructor and department head. Graded "Satisfactory" or "Unsatisfactory." A supervised, practical experience using environmental geosciences skills in an appropriate organization. The course provides students with an opportunity to apply skills learned during pursuit of the environmental geosciences degree to real world situations.
- GEOL 4860 Senior Thesis I** 1-0-1
Also offered as GEOG 4860. Prerequisite: Junior or Senior standing and consent of the instructor. The first course in a three-semester research project designed by the student and supervising faculty member(s) in an approved area of interest. Students will design their project and gather data during Senior Thesis I.

- GEOL 4861 Senior Thesis II** 2-0-2
Also offered as GEOG 4861. Prerequisite: GEOG 4860 or GEOL 4860. The second course in a three-semester research project designed by the student and supervising faculty member(s) in an approved area of interest. Students will continue data collection begun in Senior Thesis I, complete data analysis, and write a thesis.
- GEOL 4862 Thesis Presentation** 1-0-1
Also offered as GEOG 4862. Prerequisite: GEOG 4861 or GEOL 4861. The third course in a three-semester research project designed by the student and supervising faculty member(s) in an approved area of interest. Students will present their senior thesis project in both oral and poster form to the department or at an approved professional meeting.
- GEOL 4900 Special Topics in Geology** 1-0-1 to 4-4-6
Prerequisite: GEOL 1121K and GEOL 1122K, or equivalent, and consent of instructor. Topics to be assigned by instructor; may be taken more than once if topics are different; up to a total of 6 credit hours.
- GEOL 4950 Directed Studies in Geology** 1-0-1 to 4-4-6
Prerequisites: GEOL 1121K and GEOL 1122K; Junior standing; and permission of advisor, instructor, and Department Head. Study of subjects not normally found in established courses offered by this department; may also allow students to explore in more detail and/or depth subjects covered by this department, up to a maximum of 6 credit hours.

GRMN: GERMAN

- GRMN 1001 Beginning German Language and Introduction to German Culture, I** 3-0-3
 Emphasis on the development of proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions. GRMN 1001 is not open for credit to students with two or more years of high school German or the equivalent.
- GRMN 1002 Beginning German Language and Introduction to German Culture, II** 3-0-3
Prerequisite: GRMN 1001 or the equivalent. A continuation of GRMN 1001, with emphasis on proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- GRMN 1111 Intensive German Language & German Culture** 3-0-3
Prerequisite: Two or more years of high school German or the equivalent. Emphasis on the development of proficiency and communicative competence at the novice level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness of various sociocultural aspects and the distinctiveness of certain cultural traditions. GRMN 1111 is a one-semester combination of GRMN 1001 and GRMN 1002. This course is designed for those students not fully prepared for the 1002 level. GRMN 1111 reviews the concepts presented in GRMN 1001 and advances the student through the material of GRMN 1002.
- GRMN 2001 Intermediate German Language and German Culture, I** 3-0-3
Prerequisite: GRMN 1002 or the equivalent. Emphasis on the development of proficiency and communicative competence at the intermediate level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching

- of Foreign Languages Proficiency Guidelines. Awareness and understanding of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- GRMN 2002 Intermediate German Language and German Culture, II** 3-0-3
Prerequisite: GRMN 2001 or the equivalent. A continuation of GRMN 2001, with emphasis on proficiency and communicative competence at the intermediate level in the four basic skills: speaking, listening, reading, and writing, as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines. Awareness and understanding of various sociocultural aspects and the distinctiveness of certain cultural traditions.
- GRMN 3310 Intermediate Reading** 3-0-3
Prerequisite: GRMN 2002 or consent of instructor. The development of students' proficiency in spoken and written German. The readings will be based on material from contemporary sources, including prose, poetry, and theater.
- GRMN 3320 Intermediate Grammar and Composition** 3-0-3
Prerequisite: GRMN 2002 or consent of instructor. Continued study of the major difficulties of German grammar with practice in compositions.
- GRMN 3540 German Popular Literature** 3-0-3
Prerequisite: GRMN 3310 or consent of the instructor. Study of lyrical forms, such as the ballads and poems of selected major authors and the lyrics of the common people over several centuries. A study of prose forms of popular literature, such as fairy tales and contemporary children's books.
- GRMN 3551 German Culture and Civilization I** 3-0-3
Prerequisite: GRMN 3310 or 3320 or consent of the instructor. Study of geography, history, and educational and political systems in Germany, with attention given to music, art, and letters.
- GRMN 3552 German Culture and Civilization II** 3-0-3
Prerequisite: GRMN 3310 or 3320 or consent of the instructor. Study of current issues in Germany. Selected readings & discussion from the German press, radio and TV, and literary texts.
- GRMN 3560 Survey of German Poetry** 3-0-3
Prerequisite: GRMN 3310 or consent of the instructor. Study of representative poetry over the centuries with the focus on the development of content and form.
- GRMN 3570 Survey of 18th- and 19th-Century German Theater** 3-0-3
Prerequisite: GRMN 3310 or consent of the instructor. Study of selected plays in their entirety with emphasis on the social changes in German society.
- GRMN 3580 Contemporary Works in German–Language & Literature** 3-0-3
Prerequisite: GRMN 3310 or consent of the instructor. Study of selected works in their entirety with emphasis on current social concerns in the German-speaking world.
- GRMN 4410 Advanced Conversation** 3-0-3
Prerequisite: GRMN 2002 or consent of instructor. Intensive approach to spoken German based on everyday activities and occurrences.
- GRMN 4420 Questions of Gender in German-Language Texts** 3-0-3
Prerequisite: GRMN 3310 or consent of the instructor. Study of the works of women authors in the German-speaking world and of the treatment of gender in other texts.
- GRMN 4950 Directed Study** 3-0-3
Prerequisite: GRMN 3310 or consent of the instructor. Study in a special area of German literature or the German language not normally found in established courses offered by the department. The work is done under the supervision of a professor.
- GRMN 4960 Study Abroad Special Topics** 3-0-3
Consult the Department of Modern and Classical Languages regarding arrangements, requirements, and credit. May be repeated for a maximum of 9 hours if topics are different.